



<http://dx.doi.org/10.11646/zootaxa.3784.2.9>

<http://zoobank.org/urn:lsid:zoobank.org:pub:FC522E97-3177-41A6-BCF6-12BF4BA308E7>

A new species of *Neobelocera* Ding & Yang (Hemiptera: Delphacidae: Delphacinae: Tropidocephalini) from China, with a key to species of the genus

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Abstract

Neobelocera medogensis **sp. nov.** (Hemiptera: Delphacidae: Delphacinae: Tropidocephalini) is described and illustrated from M²dog, Tibet, China. The new species can be easily separated from other known species in the genus *Neobelocera* by the color of tegmina and the form of the male genitalia. A key for separation of all known species of *Neobelocera* is also provided.

Key words: Hemiptera, Delphacidae, Tropidocephalini, *Neobelocera*, new species, China

Introduction

The delphacid genus *Neobelocera* (Hemiptera: Fulgoroidea: Delphacidae) was established by Ding & Yang (in Ding *et al.* 1986) based on the type species *Neobelocera asymmetrica* Ding & Yang, 1986 from Jinghong, Yunnan Province, China. It belongs to the tribe Tropidocephalini of the subfamily Delphacinae and is characterized by the first antennal segment flattened and subsagittate. *Neobelocera* is closely related to *Belocera* Muir, 1913, but differs from the latter in the first antennal segment with apicolateral angles asymmetrical, with a medio-longitudinal carina (In *Belocera*, the first antennal segment with apicolateral angles symmetrical, without a medio-longitudinal carina). Currently *Neobelocera* includes 7 species, all recorded from southern China, viz. *N. asymmetrica* Ding & Yang, 1986 (Yunnan), *N. zhejiangensis* (Zhu, 1988) (Zhejiang, Anhui, Jiangsu), *N. hanyinensis* Qin & Yuan, 1998 (Shaanxi), *N. lanpingensis* Chen, 2003 (Yunnan), *N. laterospina* Chen & Liang, 2005 (Hunan) and *N. lii* Hou & Chen, 2010 (Guangdong, Hainan), and *N. medogensis* **sp. nov.** (Tibet). Most of species in this genus were found attacking the bamboos (Bambusoideae). In this paper a new species *Neobelocera medogensis* **sp. nov.** is described and illustrated from Tibet, China. A key to all 7 known species of the genus *Neobelocera* is also provided for identification purpose.

Material and methods

Dry specimens were used for the description of external characteristics, and the male genitalia were used for the diagnosis of anatomical features. The male abdomen part were removed carefully with a pin and macerated in the solution of 10% potassium hydroxide (KOH) that was heated gently (about 10 minutes). The abdomen part was then rinsed with distilled water and placed in glycerol (glycerina) for examination and dissection under lighted microscope. Photographs were taken by a Nikon Eclipse 80i with Nikon DS F: 1 and Nis Elements D software. The morphological terminology used in this paper follows that of Yang & Yang (1986), Liang (2002), Ding (2006) and Hou & Chen (2010).

The type specimens of the new species are deposited in the Nanjing Agricultural University, Nanjing, Jiangsu, China (NJAU).

Key to species of *Neobelocera*

1. Tegmina yellowish white, hyaline, with a small dark brown marking on furcation of Sc₁ *N. medogensis* sp. nov.
- Tegmina with blackish brown marking, of which veins bear white spots or white short stripes at intervals 2
2. Frons with pale transverse band below level of lower margin of eyes 3
- Frons without transverse band 4
3. Frons with pale transverse band very narrow, shorter than the length of frons about 0.14:1, ventral margin of pygofer with 3 medioventral processes *N. lanpingensis* Chen
- Frons with pale transverse band rather broad, shorter than the length of frons about 0.25:1, ventral margin of pygofer deeply incised, without medioventral process *N. asymmetrica* Ding & Yang
4. Median carina of vertex, pronotum, mesonotum and frons white bordered with dark brown to blackish brown 5
- Not as above, tegmen at basal part and hind margin of apical part with blackish brown markings, ventral margin of pygofer concave medially, lateral side of which each with a short process *N. lii* Hou & Chen
5. Pygofer with ventral margin concave medially, on lateral side each with a long, slender process; genital styles slender and long, with a spine-like process subapically *N. laterospina* Chen & Liang
- Pygofer with ventral margin without any process 6
6. Genital styles long, parallel and slightly sinuate, with inner apical angle acute, without process *N. zhejiangensis* (Zhu, 1988)
- Genital styles rather robust, apex acute, with branch lateral process terminating with 3–5 spinose processes *N. hanyinensis* Qin & Yuan

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